



INNERSPACE CORPORATION

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INNERSPACE BDC 12240-05

INNERSPACE - 5HP - 240VDC - 1002 ELECTRIC THRUSTER

Thruster Detail

MOTOR TYPE: **3 Phase BDC**
 BUS VOLTAGE: **240-280 VDC**
 THRUSTER DIA: **14.5 inch**
 LENGTH: **19.5 inch**

Performance

Max Current: **20.4 Amps**
 Max THRUST: **304 lbs**
 TOTAL DRY WEIGHT: **48 lbs**
 TOTAL WET WEIGHT: **35 lbs**

Reference Operating Point

SPEED: **1600 RPM**
 POWER IN: **4478 Watts**
 MIN VOLTAGE: **240 VDC**
 CURRENT: **16.3 Amps**

Command SPEED (RPM)	Motor Voltage (Peak)	Current (A rms)	Motor SPEED RPM	Torque		Thrust			SHAFT POWER		POWER IN (watts)	POWER IN (HP)	Efficiency Pout/Pin
				N-M	in-lbs	lbf	Kgf	N	(HP)	(watts)			
750	104	4.1	750	5.9	52.3	48	22	214	0.62	465	496	0.7	93.7%
1000	143	6.7	1000	9.8	86.8	86	39	384	1.38	1028	1114	1.5	92.2%
1100	158	8.0	1100	11.7	103.4	106	48	470	1.80	1346	1469	2.0	91.6%
1200	175	9.4	1200	13.7	121.5	127	58	565	2.31	1726	1895	2.5	91.1%
1300	191	11.0	1300	16.0	141.2	151	68	670	2.91	2173	2402	3.2	90.5%
1400	208	12.6	1400	18.4	162.5	177	80	786	3.61	2693	2996	4.0	89.9%
1450	217	13.5	1450	19.6	173.7	190	86	847	4.00	2982	3328	4.5	89.6%
1500	225	14.4	1500	20.9	185.3	205	93	911	4.41	3291	3685	4.9	89.3%
1550	234	15.3	1550	22.3	197.4	220	100	978	4.85	3621	4068	5.5	89.0%
1600	243	16.3	1600	23.7	209.8	236	107	1048	5.33	3973	4478	6.0	88.7%
1650	252	17.3	1650	25.2	222.6	252	114	1120	5.83	4347	4916	6.6	88.4%
1700	261	18.3	1700	26.6	235.8	269	122	1195	6.36	4745	5383	7.2	88.1%
1750	270	19.4	1750	28.2	249.4	286	130	1273	6.92	5166	5880	7.9	87.9%
1800	279	20.4	1800	29.8	263.4	304	138	1353	7.52	5611	6408	8.6	87.6%